

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 21855 5/2/2001]

[Docket No. 99-NM-124-AD; Amendment 39-12206; AD 2001-09-01]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 757-200 and -300 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 757-200 and -300 series airplanes, that requires repetitive clearing of the drain passage at the aft end of the main landing gear (MLG) truck beam to ensure moisture and contaminants within the truck beam can properly drain; and, for certain airplanes, an internal inspection of the truck beam to detect discrepancies, and follow-on actions. This amendment is prompted by reports of fracture of MLG truck beams. The actions specified by this AD are intended to prevent stress corrosion cracking, leading to fracture of a MLG truck beam during ground operations, which could result in either reduced controllability of the airplane or a fire.

DATES: Effective June 6, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of June 6, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Dennis Stremick, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2776; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain 757-200 and -300 series airplanes was published as a supplemental notice of proposed rulemaking (NPRM) in the **Federal Register** on September 18, 2000 (65 FR 56268). That action proposed to require repetitive clearing of the drain passage at the aft end of the main landing gear (MLG) truck beam to ensure moisture and contaminants within the truck beam can properly drain. That action also proposed to expand the applicability, and, for certain airplanes, add a new inspection and follow-on actions.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received. **Reference Revised Service Bulletins**

One commenter asks that the FAA revise the supplemental NPRM to reference Revision 1 of Boeing Alert Service Bulletins 757-32A0135 and 757-32A0138, both dated November 30, 2000. The proposed rule referenced Boeing Alert Service Bulletins 757-32A0135 (for Model 757-200

series airplanes) and 757-32A0138 (for Model 757-300 series airplanes), both dated June 8, 2000, as the appropriate sources of service information for certain proposed actions. The commenter states that the service bulletins have been revised for clarification, based on questions received from operators.

We concur with the commenter's request. Since the issuance of the proposed rule, the FAA has reviewed and approved Revision 1 of the service bulletins. Revision 1 clarifies certain instructions and revises the effectivity listing to show changes in airplane operators. (No additional airplanes are added to the effectivity listing of Revision 1.) Therefore, we have revised the applicability statement and paragraphs (a) and (b) of this final rule to reference Revision 1 of the service bulletins as the appropriate source of service information for the actions required by those paragraphs. We also have revised Notes 2 and 3 to state that accomplishment of the actions required by this AD in accordance with the original issue of the service bulletins is acceptable for compliance with paragraphs (a) and (b) of this final rule.

Change Certain Wording in Paragraphs (a) and (b)

Two commenters ask that the wording in paragraphs (a) and (b) of the proposed rule, which specifies “. . .since the date of manufacture of the MLG. . .,” be changed to read “. . .since the date of delivery of the airplane or since date of installation for new replacement truck beams installed after airplane delivery. . . .” The commenters state that exposure to a typical service environment does not occur until after the airplane is delivered. This is because the airplane is maintained in a controlled environment and the landing gear is not exposed to the harsh conditions of in-service landing gear, so no degradation of protective finishes would be expected prior to delivery.

One commenter notes that the landing gear manufacturing date will normally precede airplane delivery by several months (and could be much longer for replacement truck beams), and the manufacturer does not typically provide the landing gear date of manufacture to the operators. If the date of manufacture is used as the basis for determining the inspection threshold, the manufacturer will be required to research and compile the data for distribution to operators. Operators could be required to comply months earlier than intended, as the service bulletins referenced in the proposed rule specify airplane age, which is normally based on delivery date. Specifying the airplane delivery date, or date of installation of new replacement truck beams as the basis for determining the compliance threshold will simplify determination of the threshold for each affected airplane. The operators will already have delivery or installation dates in their records, and will not have to rely on the manufacturer to provide additional information.

We concur with the commenters' requests. We agree that exposure to a typical service environment does not occur until after the airplane is delivered to the original operator, because the airplane is maintained in a controlled environment and the landing gear is not exposed to the harsh conditions of in-service landing gear, as the commenter states. Additionally, specifying a compliance time of within a certain number of years since the date of airplane delivery or since the date of installation of new replacement truck beams will allow operators easy access to the data necessary for determining when the clearing procedure should be done. Paragraphs (a) and (b) of the final rule have been changed accordingly.

Change Various Sections

One commenter asks for the following changes:

1. Replace the term “MLG,” as specified in paragraphs (a) and (b) of the proposed rule, with “MLG truck beam” throughout the proposed rule. The commenter states that this would specify the exact component affected by the proposal and allow additional compliance time for units having the MLG truck beam replaced with an overhauled unit separately from the MLG assembly.

We concur. The term “MLG” has been changed throughout the final rule to the term, “MLG truck beam.” Specifying the component instead of the entire MLG assembly allows additional time for compliance when the existing MLG truck beam is replaced with a new or overhauled truck beam, apart from the MLG assembly.

2. Replace the phrase “Overhaul of the MLG truck beam prior to the effective date of this AD. . , ” as specified in Note 3 of the proposed rule, with “Overhaul of the MLG truck beam prior to the compliance time of this AD. . . .” This is to allow credit to be taken for MLG assemblies overhauled and installed within the AD compliance time.

We partially concur with the commenter. We do not concur that the phrase "Overhaul of the MLG truck beam prior to the effective date of this AD," as specified in Note 3 of the final rule, be replaced with "Overhaul of the MLG truck beam prior to the compliance time of this AD." Note 3 gives operators credit for overhaul of the MLG truck beam prior to the effective date of the AD, in accordance with the original service bulletin. However, we do concur that the commenter be given credit for MLG assemblies overhauled and installed within the AD compliance time. However, the FAA notes that operators are always given credit for work accomplished previously if the work is performed in accordance with the existing AD by means of the phrase in the compliance section of the AD that states, “Required as indicated, unless accomplished previously.”

Another commenter asks that Note 3 of the proposed rule be removed or clarified to state that previously overhauled truck beams comply with the rule based on prior accomplishment of the applicable service bulletins. The commenter states that Note 3 could be interpreted as being applicable to all truck beams that were overhauled per Boeing Model 757 Component Maintenance Manual (CMM) 32-11-56, which is specified in the service bulletins referenced in the proposed rule.

We concur with the commenter that Note 3 of the final rule needs further clarification, however, including the original service bulletin in the note already gives credit for previously overhauled truck beams that comply with the rule based on prior accomplishment. Prior accomplishment of the overhaul of the MLG truck beam, as referenced in the note, does include overhaul of the truck beam per the CMM because it is referenced in the service bulletin as a source for doing the overhaul of the truck beam. Also, we have added the internal inspection specified in paragraph (b) of the final rule to further clarify the intent of Note 3.

3. Remove the phrase “. . .in accordance with Boeing Alert Service Bulletin 757-32A0135, dated June 8, 2000. . .” from Note 3 of the proposed rule to avoid confusion, since the referenced service bulletin does not specify any additional actions beyond the current overhaul procedures.

We do not concur. As stated in issue 2. above, Note 3 gives operators credit for overhaul of the MLG truck beam prior to the effective date of the AD, in accordance with the original service bulletin. The actions required by this AD must be performed in accordance with FAA-approved procedures and the referenced service bulletin contains such procedures. We cannot leave the note open so that the operator can use any procedure they might have available because not all maintenance procedures are FAA-approved.

4. Give credit for paragraph (b) of the proposed rule, within the referenced compliance time, if an airplane within Group 1 has an MLG assembly replaced with either a new MLG assembly or an overhauled MLG assembly incorporating a new MLG truck beam.

We concur that if an airplane within Group 1 has a MLG assembly replaced with either a new MLG assembly or an overhauled MLG assembly incorporating a new MLG truck beam, that airplane is in compliance with this AD. As stated in our response to issue 1. above, the term “MLG” has been changed throughout the final rule to the term “MLG truck beam,” which clarifies this information.

Extend Compliance Times

One commenter asks that the repetitive interval for the clearing procedure of the aft drain hole, as specified in paragraph (a) of the proposed rule, be changed from 6 months to 18 months, even if the drain hole is found clogged. The commenter states that unless there is conclusive evidence that it is more likely that a blocked drain hole that is cleared will be more likely to block again, this requirement cannot be justified and should be reviewed.

We do not concur. If the clogging of the drain passage was caused by incorrect application of corrosion inhibiting compound, the clogging is likely to reoccur sooner than for a drain passage that is not blocked. The repetitive interval for the clearing procedure for an aft drain hole that is found clogged will remain at every 6 months.

A second commenter asks that the compliance time specified in paragraph (b) of the proposed rule be extended. The commenter states that it is presently operating under an approved 24-month 'C' check (heavy maintenance) program. The proposed rule specifies a compliance period of 6 months to inspect all affected MLG, if the date of manufacture is over 8 years. The commenter has 44 MLG (22 airplanes) which fall into this category and considers that compliance time to be overly aggressive. The commenter adds that the inspection is better performed in a heavy maintenance environment, and 6 months would not allow them the scheduling opportunity to perform internal inspections on all the affected MLG. The commenter also notes that, in the unlikely event that a truck assembly requires replacement, options for accomplishment of the replacement are extremely limited considering shipping, turn time, limited parts availability, and a compliance time of 6 months, to perform the internal inspections and any replacement necessary. These conditions cause an undue burden on the operators.

We do not concur. In developing an appropriate compliance time for this action, we considered not only the degree of urgency associated with addressing the subject unsafe condition, but the manufacturer's recommendation as to an appropriate compliance time, and the practical aspect of accomplishing the required inspection and corrective action within an interval of time that parallels the normal scheduled maintenance for the majority of affected operators. We have determined that within 8 years since the date of airplane delivery (for MLG truck beams that have not been overhauled), or since the date of installation of new truck beams (per response to a previous comment), or within 6 months after the effective date of this AD; whichever occurs latest, represents an appropriate compliance time allowable for the inspection and corrective action to be accomplished during scheduled maintenance intervals. But under the provisions of paragraph (c) of the final rule, we may approve requests for adjustments to the compliance time if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety.

A third commenter states that a time limit of 30 days for overhaul or replacement of the MLG truck beam should be allowed if any discrepancy is detected. The commenter notes that a small airline does not have the resources to perform an immediate overhaul or replacement of the affected part.

We do not concur. As stated in the proposal, there have been several reports of fracture of the MLG truck beam due to stress corrosion cracking, which can lead to fracture of the truck beam. This unsafe condition could result in either reduced controllability of the airplane or a fire. In consideration of the end-level effect of the unsafe condition on the airplane, if not immediately addressed, the FAA has determined that the compliance time of prior to further flight for overhaul or replacement of the truck beam if any discrepancy is detected, as specified in paragraph (b) of the final rule, must remain. This compliance time is necessary to maintain an adequate level of safety within the transport airplane fleet.

Revise Applicability

One commenter asks that the applicability of the proposed rule be revised to specify the truck beam part number and serial number, instead of the airplane serial number. The commenter states that the only link between the components and the airplane that are affected by the proposal is the configuration of the airplane at delivery. The commenter adds that identification by the part number and serial number will eliminate the possibility that unsafe truck beams will not be included in the applicability of the rule.

We do not concur. The applicability of this AD identifies Model 757-200 and -300 series airplanes, as listed in the referenced service bulletins, which specify the airplane line numbers. The manufacturer has verified that the truck beams specified in this AD are installed on airplanes listed in the effectivity section of Revision 1 of the service bulletins, so no change to the applicability of this AD is necessary in this regard.

Clarify Terminating Action

Two commenters ask for the following changes:

One commenter asks that the installation of new or overhauled truck beams terminate the repetitive clearing of the drain hole specified in paragraph (a) of the proposed rule. The commenter states that the manufacturer considers overhaul of the truck beams to be sufficient for termination of the repetitive clearing procedures specified in the service bulletin. The commenter adds that while the requirements of an AD are binding, and the statements in a service bulletin are merely recommendations, the FAA should consider including the content of the manufacturer's recommendation in the final rule.

The commenter also notes that this condition is a result of insufficient corrosion protection, which is due to improper plating of the parts during manufacture and/or improper application of primer, grease, or corrosion-preventive compounds during assembly. The potential for a corrosion problem on the truck beams that were improperly manufactured is increased as a result of the fact that the improperly applied grease or corrosion-preventive compounds may block the drain hole. But the commenter adds that the manufacturer and the suppliers have improved their processes and the unsafe condition has been eliminated in later deliveries, as indicated by the fact that the service bulletins referenced in the proposed rule are applicable to airplanes having line numbers 1 through 874 only.

The FAA agrees that clarification is necessary. The current CMM referenced in the service bulletins contains an error that specifies the application of too much corrosion inhibiting compound on the interior of the MLG truck beam. If the CMM is used to apply the corrosion inhibiting compound, the unsafe condition may still exist on later deliveries of Model 757-200 and -300 series airplanes.

Another commenter asks that the FAA determine whether operators with truck beams that were overhauled and installed prior to the effective date of the proposed rule should do the repetitive drain hole clearing and detailed internal inspection per the proposed rule. A second commenter asks if the overhaul or replacement of the truck beams is terminating action for the repetitive clearing procedures of the aft drain hole, or if it is corrective action as specified in paragraph (b) of the proposed rule.

We do not concur. For airplanes with truck beams that were overhauled and installed prior to the effective date of the final rule, as well as all other affected airplanes, the repetitive drain hole clearing and detailed internal inspection procedures must continue to be done indefinitely. The corrective action of either applying corrosion preventive compound, or overhaul or replacement of the truck beam, does not terminate the repetitive clearing procedures of the aft drain hole.

Reference Maintenance Planning Document (MPD)

One commenter requests that the repetitive clearing procedure of the aft drain hole be addressed by an MPD revision because Boeing Service Letter 757-SL-32-060, dated March 31, 1999, specifies the possible addition of the clearing instructions for the drain hole to the MPD. The commenter notes that once the corrective actions have been accomplished per the service bulletins, the unsafe condition in the proposed rule is eliminated. The commenter adds that any further maintenance after the initial clearing of the drain hole should be limited to the procedures contained in the MPD, as the requirements in that document should be adequate to maintain all airplane systems.

We do not concur. The repetitive clearing procedures of the aft drain hole are not specified in the MPD, so further maintenance cannot be done per that document.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 874 airplanes of the affected design in the worldwide fleet. The FAA estimates that 350 Model 757-200 series airplanes of U.S. registry will be affected by this AD.

It will take approximately 1 work hour per airplane to accomplish the inspections, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the inspections required by this AD on U.S. operators is estimated to be \$21,000, or \$60 per airplane, per inspection cycle.

For Group 1 airplanes, as listed in Boeing Alert Service Bulletin 757-32A0135: It will take approximately 28 work hours per airplane to accomplish the internal inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the inspection required by this AD is estimated to be \$1,680 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Currently, there are no Model 757-300 series airplanes on the U.S. Register. But should an affected airplane be imported and placed on the U.S. Register in the future, it will require approximately 1 work hour to accomplish the inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection will be \$60 per airplane, per inspection cycle.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption “ADDRESSES.”

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-09-01 BOEING: Amendment 39-12206. Docket 99-NM-124-AD.

Applicability: Model 757-200 series airplanes as listed in Boeing Alert Service Bulletin 757-32A0135, Revision 1; and Model 757-300 series airplanes as listed in Boeing Alert Service Bulletin 757-32A0138, Revision 1; both dated November 30, 2000; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent stress corrosion cracking, leading to fracture of a main landing gear (MLG) truck beam during ground operations, which could result in either reduced controllability of the airplane or a fire, accomplish the following:

Repetitive Clearing Procedure

(a) Within 4 years since the last overhaul of the MLG truck beam, since the date of airplane delivery (for MLG truck beams that have not been overhauled), or since the date of installation of new truck beams; or within 90 days after the effective date of this AD; whichever occurs latest: Insert a wooden probe, or similar non-metallic object, into the aft drain hole of the MLG truck beam, to clear the drain passage and ensure it can properly drain, in accordance with Boeing Alert Service Bulletin 757-32A0135, Revision 1 (for Model 757-200 series airplanes), or 757-32A0138, Revision 1 (for Model 757-300 series airplanes), both dated November 30, 2000, as applicable.

(1) If the aft drain hole is found unclogged, repeat the clearing procedure thereafter at intervals not to exceed 18 months.

(2) If the aft drain hole is found clogged, repeat the clearing procedure thereafter at intervals not to exceed 6 months.

Note 2: Accomplishment of the clearance of the drain passage prior to the effective date of this AD in accordance with Boeing Service Letter 757-SL-32-060, dated March 31, 1999; Boeing Alert Service Bulletin 757-32A0135 (for Model 757-200 series airplanes), or 757-32A0138 (for Model 757-300 series airplanes), both dated June 8, 2000; as applicable; is considered acceptable for compliance with the requirements specified in paragraph (a) of this AD.

Internal Inspection

(b) For Group 1 airplanes as listed in Boeing Alert Service Bulletin 757-32A0135, Revision 1, dated November 30, 2000: Within 8 years since the date of airplane delivery (for MLG truck beams that have not been overhauled), or since the date of installation of new truck beams; or within 6 months after the effective date of this AD; whichever occurs latest: Perform an internal inspection of the truck beam protective finish (plating and primer) to detect discrepancies (flaked, cracked, missing finish, or corrosion), as illustrated in Figure 2 of the alert service bulletin.

Corrective Action

(1) If no discrepancy is detected, prior to further flight, apply corrosion preventive compound in accordance with the Accomplishment Instructions of the alert service bulletin.

(2) If any discrepancy is detected, prior to further flight, overhaul or replace the truck beam, as applicable, in accordance with the Accomplishment Instructions of the alert service bulletin.

Note 3: Accomplishment of the internal inspection and overhaul of the MLG truck beam, as applicable, prior to the effective date of this AD, in accordance with Boeing Alert Service Bulletin 757-32A0135, dated June 8, 2000, is considered acceptable for compliance with the requirements specified in paragraph (b) of this AD.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 757-32A0135, Revision 1, dated November 30, 2000; or Boeing Alert Service Bulletin 757-32A0138, Revision 1, dated November 30, 2000; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(f) This amendment becomes effective on June 6, 2001.

FOR FURTHER INFORMATION CONTACT: Dennis Stremick, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2776; fax (425) 227-1181.

Issued in Renton, Washington, on April 20, 2001.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.